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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,693	10/20/2003	Yoshiyuki Yamashita	36856.1138	2846
7590 04/06/2005			EXAMINER	
Keating & Bennett LLP			LIE, ANGELA M	
Suite 312			ART UNIT	
10400 Eaton Place			PAPER NUMBER	
Fairfax, VA 22030			2821	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/687,693

Applicant(s)

YAMASHITA ET AL.

Examiner

Angela M. Lie

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-11,13 and 15 is/are rejected.
- 7) ☒ Claim(s) 2,12 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/20/2003</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show an electronic lighting circuit (3) in the figure 1, as described in the specification (Detailed description of preferred embodiments, paragraph 2). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the positive temperature characteristic thermistor being mounted on a fluorescent light bulb side of the electronic lighting circuit substrate must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1, 3-11,13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by self admitted prior art (JP 2001-357989).

As to claim 1, the admitted prior art discloses a fluorescent lighting comprising: a fluorescent light bulb having an electrode filament (Figure 3 elements 7 and 8), an electronic lighting circuit substrate for lighting the fluorescent light bulb (Figure 3 element 20), a capacitor connected in parallel with the fluorescent light bulb (Figure 2 elements 18 and 2), a positive temperature characteristic thermistor connected in parallel with the capacitor (Figure 2 elements 18 and 19), a negative temperature characteristic thermistor connected in parallel with the electrode filament (Figure 2 elements 16,17, 7 and 8) are mounted on the electronic lighting circuit substrate (Figure 3 elements 16,17,19 and 20), a negative characteristic thermistor has a mounting surface that is mounted in such a manner that the mounting surface is in abutment (in contact) with the electronic lighting circuit substrate (Figure 3 elements 16,17 and 20, since 16 and 17 are touching circuit substrate (20), therefore it is considered that its mounting surface i.e. the end point of the NTC to be in abutment with the circuit substrate(20)).

As to claim 3, the prior art discloses an external-tube glass bulb, which covers the fluorescent light bulb (Figure 3 element 4).

As to claim 4, the prior art discloses a resin case connected to the external-tube glass bulb (Figure 3 element 5).

As to claim 5, the prior art discloses an electronic lighting circuit housed in the resin case (Figure 3 elements 5 and 20).

As to claim 6, the prior art discloses a fluorescent light bulb having four U-shaped glass tubes (Figure 3 element 2, notice that the drawing of the light bulb is two-dimensional, therefore all the glass tubes are not visible on the drawing, however once this picture would be made three-dimensional, it would be visible that there are indeed four filaments because of the symmetry of the glass tubes).

As to claim 7, the prior art discloses a fluorescent light bulb including a pair of electrode filaments (Figure 3 elements 7 and 8).

As to claim 8, the prior art discloses a first pair of electrode filaments being held by a first pair of reed lines at a first location (Figure 3 elements 7,9 and 10) and a second of the pair of electrode filaments being held by a second pair of reed lines at a second location (Figure 3 elements 8, 11 and 12).

As to claim 9, the prior art discloses each of the first (9,10) and second pair of reed lines (11,12) being electrically connected to an electronic lighting circuit (Figure 3 elements 9,10,11,12 and 20).

As to claim 10, the prior art discloses an electronic lighting circuit (Figure 2) including an inverter circuit (14) section driven by a power supply (13) so as to light the fluorescent light bulb (2).

As to claim 11, the prior art discloses a pair of the negative temperature characteristic thermistors (Figure 3 elements 16 and 17) being surface mounted on the same surface of the electronic lighting circuit substrate (20).

As to claim 13, the prior art discloses a positive temperature characteristic thermistor (Figure 3 element 19) being mounted on a base side of the electronic lighting circuit substrate (20).

As to claim 15, the prior art discloses the negative temperature characteristic thermistor (Figure 3 elements 16 and 17) being mounted on a base side of the electronic lighting circuit substrate (20).

***Allowable Subject Matter***

5. Claim 2, 12 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art failed to disclose a positive and negative characteristic thermistor being mounted on mutually different mounting surfaces among the two mounting surfaces of the obverse and reverse surfaces of said electronic lighting circuit substrate, as clearly stated in claim 2, a negative temperature characteristic thermistor being mounted on a fluorescent light bulb side of the electronic lighting circuit substrate as

Art Unit: 2821

clearly stated in the language of claim 12 and a positive temperature characteristic thermistor being mounted on a fluorescent light bulb side of the electronic lighting circuit substrate as clearly stated in claim 14.

***Relevant Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 6600272 discloses a bulb-shaped fluorescent lamp, very similar electric circuitry to the disclosed in the application, however NTC and PTC are not identified in the drawing of the light bulb
- US Patent 6469447 discloses a fluorescent lamp lighting apparatus, this included description of the lighting circuitry and the drawing of the light bulb, however it does not explicitly mention about NTC or PTC
- JP Patent 2001-035675 discloses a fluorescent light bulb where the main designed goal is to reduce energy usage, it lacks information about NTC and PTC
- JP Patent 62126596 discloses a fluorescent lamp lighting device which has a diode and bidirectional semiconductor control element between electrodes, this invention has different lighting circuitry than the one disclosed in the application and lacks explicit information on where particular elements like PTC and NTC are located in the light bulb.



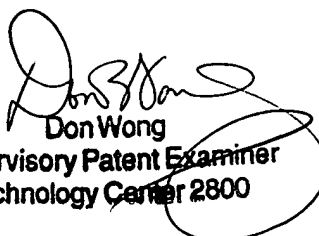
**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Don Wong  
Supervisory Patent Examiner  
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